

***Barton*Healthcare**SM
CONSULTING ENGINEERS



*We Make Buildings Work*SM

Surgical | Emergency | Outpatient Surgical | Treatment/Diagnostic | Nursing
Patient Support Services | **Medical Offices** | General Support Services | Senior Living



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We Make Buildings WorkSM

Barton Healthcare has provided MEP design services for numerous new and/or renovated **medical office** buildings. We understand the design challenges of the MEP systems for **medical offices** and specifically consider the following:

- Life Cycle Cost of MEP Systems
- MEP System Selection Based on Cost/Benefit Evaluation with the Owner
- Acoustics and Vibration Control
- Special Lighting Features and Controls

Barton Healthcare's team understands that it is important for the MEP systems serving medical office buildings to have the flexibility to be modified over time to serve changing tenant requirements. We also help our clients understand the MEP system benefits and life cycle cost impacts so that they can be confident they are making a sound MEP investment.



Medical office buildings are an integral part of today's healthcare delivery system. For healthcare providers, it is critical that these buildings be designed with the flexibility to adapt to changing healthcare models and technology as well as realize cost-effective operations. Building function, budget and system life cycle costs are just a few of the drivers that Barton Healthcare's dedicated team considers on each project. We strive to define mechanical and electrical system solutions that best match the owner's project and building. Whether considering the costs/benefits between a central and de-centralized HVAC system approach, or coordinating specialty lighting features and controls, our designers and engineers work diligently to develop solutions that support our client's goals and desired outcomes. We also understand that the tenants and service lines housed in medical office buildings are destined to change over time. We help our clients make informed decisions and select engineered systems that have the flexibility to adapt to future changes in building use and medical technology.

If you are planning a medical office project, it is critical to have an engineering partner who understands the industry and the need to balance first cost budgets with long range benefits. Barton Healthcare's experienced team will take the time to understand your goals and provide you with engineering solutions that support your unique vision.



Virtua Health System Health & Wellness Center | Moorestown, NJ
Ambulatory Care Center, Medical Office Building and Tenant Fit-Outs
200,000 sq. ft. | \$55 million | December 2012

Barton Healthcare incorporated building information modeling (BIM) technology to provide mechanical, electrical and plumbing design services for the shell and core of a 3-story, 200,000 square-foot ambulatory care center. The Virtua program included various physician offices including surgery, cardiology, neurology, pain management and breast care. The facility also includes a state-of-the-art day spa, retail and on-site child care. Barton also provided design services associated with the interior fit-out for approximately 115,000 square feet of tenant spaces for Virtua Health within the building including a health and fitness center, immediate care, lab, physical therapy and cardiac rehabilitation. The HVAC systems serving the medical office portion of the building were designed with the flexibility to meet healthcare licensure requirements, if required by future occupancy. Barton also worked closely with Virtua's Information Systems group to define the short and long term IT equipment planned for each data closet to ensure that the cooling systems will meet the current and future demands of the rooms.



WellSpan Health Wheatlyn Family Medicine | Manchester, PA
New Ambulatory Medical Practice
28,000 sq. ft. | \$4.9 million | June 2012

Barton Healthcare provided mechanical, electrical and plumbing design services for a 23,000 square-foot patient-centered care facility that accommodates 8 providers with 24 exam rooms as well as a 5,000 square foot Rehabilitation Facility. Wheatlyn was designed around on-stage and off-stage corridors to reduce the congestion of patient versus staff work flow. The HVAC system consisted of a single rooftop unit serving a variable air volume system. Heating was provided through high efficiency boilers and a hot water system to provide zone temperature control.



Lancaster General Hospital | Lancaster, PA
Duke Street Medical Office Building
80,000 sq. ft. | \$8.3 million | January 2009

Barton Healthcare provided mechanical, electrical and plumbing design services for an 80,000 square-foot fit-out to construct 13 different tenants ranging from fitness and physical therapy areas to a pulmonary physicians' office and associated pulmonary function testing areas. The program also included a sleep lab, family practice, blood draw and lab testing, X-ray, ultrasound, and MRI suites. The design included the extension of medical gases and low voltage systems from the existing main hospital across a connecting walkway bridge.



LGH Suburban Outpatient Pavilion | Lancaster, PA
Suzanne H. Arnold Center for Breast Health
9,000 sq. ft. | \$1.8 million

Barton Healthcare provided mechanical, electrical and plumbing design services for this 9,000 square-foot project that relocated services for the women's diagnostic center from the Lancaster General Women & Babies Hospital to the Lancaster General Health Suburban Outpatient Pavilion. The suite included mammography, stereotactic and ultrasound rooms, as well as a diagnostic screening area, conference room, office space and other support areas.



Smyrna Health & Wellness Center | Smyrna, DE
New Medical Office Building
110,000 sq. ft. | \$8.2 million

Barton Healthcare provided mechanical, electrical, plumbing and fire protection design services for this new three-story, 110,000 square-foot medical office building. The project included building shell space and core areas to support future imaging/nuclear medicine, physical therapy, radiology/oncology, outpatient surgical center and medical office functions. MEP systems included full fit-out of public and circulation areas, medical gas/vacuum source equipment rooms, packaged VAV rooftop units, emergency power generation and normal power distribution to electrical rooms on each floor.



Hanover Hospital Thistle Hill Professional Center | Spring Grove, PA
New Medical Office Building Fit-Out
17,000 sq. ft. | \$1.5 million

Barton Healthcare incorporated building information modeling (BIM) technology to provide mechanical, electrical and plumbing design services for a fit-out of approximately 17,000 square feet of space in a new 2-story medical office building. The new facility included various outpatient functions including radiology/imaging, physical/occupational therapy and an outpatient clinic, as well as a mobile MRI trailer and outpatient lab.



MECHANICAL | ELECTRICAL | PLUMBING | FIRE PROTECTION
ARCHITECTURAL LIGHTING DESIGN | INTEGRATED ENERGY SOLUTIONS | COMMISSIONING

Barton Healthcare—a division of Barton Associates, Inc.—provides quality engineering solutions to healthcare clients throughout the Mid-Atlantic Region. Healthcare projects are often highly sensitive and complex in nature and require a customized engineering approach. Barton Healthcare has an extensive portfolio of state-of-the-art facilities including surgical, emergency, outpatient surgical, treatment/diagnostic, nursing services, patient support services, medical offices, general support services and senior living.

Barton Healthcare considers ways to minimize energy consumption, conserve resources and enhance indoor environmental quality for every project we complete. Energy Conservation is a priority in every design and our staff of professionals are trained, licensed and/or certified to design MEP systems and evaluate the performance of these systems. We utilize building information modeling for greater team collaboration. We apply focus, dedication, practicality, precision and longevity to each project we deliver and live by these principles to help us achieve our mission—We Make Buildings Work.

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